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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/912,391
Filing Date: July 26, 2001
Appellant(s): HURSEY ET AL.

Kevin J. Zilka
Reg. No. 41,429
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 21st, 2007 appealing from the Office action mailed July 24th, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,779,021	Bates et al.	8-2004
6,763,462	Marsh	7-2004
6,785,732	Bates et al.	8-2004
6,725,377	Kouznetsov	4-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claim limitations regarding identifying whether (i), (ii) and (iii) in combination is not supported by the specification. See the rejection of the claims under 35 USC 112 1st Paragraph below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4, 6-12, 14-20, and 22-28 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the instant application, although there is support for each of (i), (ii) and (iii) in the alternative, as shown in page 7 line 30 – page 8 line 15 of the present specification, but never as a combination. As such, the ordinary person skilled in the art would not be able to ascertain whether the applicants had possession of the invention as claimed at the time of

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application. Therefore, the claims are rejected for failing to meet the written description requirement of 35 USC 112 1st Paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 7, 9-11, 15, 17-19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et al. (US Patent Number 6,779,021) hereinafter referred to as Bates, and further in view of Marsh (US Patent Number 6,763,462).

Regarding claims 1, 9, and 17, Bates disclosed a computer program product operable to control an e-mail client computer to detect e-mail propagated malware and spam (See Bates Col. 6 Lines 64-67), said computer program product comprising: e-mail generating logic operable to generate an e-mail message (See Bates Col. 6 Lines 64-67); comparison logic operable to compare said e-mail message with one or more previously generated e-mail messages from said client computer (See Bates Col. 9 Lines 3-19); and identifying logic operable to identify whether: (i) said e-mail message is being sent to more than a threshold number of addressees (See Bates Col. 8 Line 56 – Col. 9 Line 2); (ii) said e-mail message contains message content having at least a threshold level of similarity to message content of said previously generated e-mail messages being sent to more than a threshold number of addressees (See Bates Col. 9 Line

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64 – Col. 10 Line 10); and (iii) said e-mail message contains message content having at least a threshold level of similarity to message content of more than a threshold number of said previously generated e-mail messages (See Bates Col. 9 Line 64 – Col. 10 Line 10), wherein said identifying logic is further operable to identify said email message as potentially containing spam (including viral spam) if at least one of items (i), (ii), and (iii) is identified (See Bates Fig. 4A and 4B), and holding said previously generated e-mail messages for at least a predetermined period (See Bates Col. 8 Lines 5-14), but Bates failed to disclose comparing addresses of an address book, how the “viral spam” was identified, or that the messages were held for a predetermined period prior to being sent from the client.

Marsh teaches that viruses spread through e-mail by sending messages to addresses found in address books and that viral activities can be detected when a threshold number of the addresses of an address book are detected in emails over a certain period of time (See Marsh Background and Col. 2 Line 34 – Col. 3 Line 65), and further teaches that upon detection of what appears to be viral activity, the user should be given the option to send, save, or delete the messages (See Marsh Col. 3 Paragraph 3).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Marsh in the spam and viral spam detection system of Bates by detecting viral spam based on thresholds of address book addressees for an email or similar emails, and further to provide a user with a warning and the option to delete, save, or send the detected viral spam messages. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide means of detecting viral spam as suggested by Marsh, as well as giving the user the final say in what is to be done with detected

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viral spam. Further, in this combination it would be obvious that the messages would be held in a “quarantine” for a predetermined amount of time prior to sending in order for the user to have the option of deleting the messages detected as being viral spam without sending the messages.

Regarding claims 2, 10, and 18, the combination of Bates and Marsh disclosed that the e-mail message specifies a plurality of addressees, said comparison logic being operable to compare said plurality of addressees with said e-mail address book to determine if said at least a threshold number of addressees has been exceeded (See the rejection of claim 1 above).

Regarding claims 3, 11, and 19, the combination of Bates and Marsh disclosed that the at least a threshold number of addressees is specified as a proportion of addressees within said address book (See the rejection of claim 1 above).

Regarding claims 7, 15, and 23, the combination of Bates and Marsh disclosed confirmation input logic operable when said e-mail message is identified as potentially containing malware to generate a user message seeking a confirmation input from a user of said client computer before said e-mail message is sent (See the rejection of claim 1 above).

Regarding claim 26, the combination of Bates and Marsh disclosed that said e-mail message is identified as potentially containing malware (See the rejection of claim 1 above) when said e-mail message and said previously generated e-mail messages share a common attachment (See the rejection of claim 1 above and Bates Col .8 Line 56 – Col. 9 Line 2 wherein e-mail messages contain attachments [Bates Col. 1 Line 66 – Col. 2 Line 7]).

Claims 4, 6, 12, 14, 20, 22, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bates and Marsh as applied to claims 1, 9, and 17 above,

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and further in view of Bates et al. (US Patent Number 6,785,732) hereinafter referred to as Bates2.

Bates and Marsh disclosed both a proportion of addresses (See rejection of claim 3 above) and a specified time period (See rejection of claim 7 above) but failed to disclose the proportion and the time period could be user specified.

Bates2 teaches that in a virus checker, a users can specify preferences about the virus checking (See Bates2 Col. 8 Lines 49). Bates2 further teaches that when a virus is discovered the "appropriate authorities" should be notified, including a virus detection company (See Bates2 Col. 8 Paragraph 1).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Bates2 in the viral spam detector of Bates and Marsh by allowing the user to specify the proportion and the time period used for determining a threat. This would have been obvious because the ordinary person skilled in the art would have been motivated to allow the user of the virus checker to specify how the checker would operate. It further would have been obvious to the ordinary person skilled in the art to forward an infected email to a virus detection company. This would have been obvious because the ordinary person skilled in the art would have been motivated to make the company aware of new viruses.

Claims 8, 16, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bates and Marsh as applied to claims 1, 9, and 17 above, and further in view of Kouznetsov (US Patent Number 6,725,377).

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Bates and Marsh disclosed sending alert an alert to a user upon detection of possible virus activity (See Col. 3 Lines 18-22), but failed to disclose sending an alert to an administrator upon detection of possible virus activity.

Kouznetsov teaches that in computer intrusion detection systems, when attack characteristics are detected, it is typical to notify an administrator of the detection (See Kouznetsov Col. 1 Paragraph 6).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Kouznetsov in the viral spam detection system of Bates and Marsh by alerting an administrator of detected possible virus activity. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide the administrator with the knowledge of the possible attack in order for the administrator to take appropriate action.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bates and Marsh as applied to claim 1 above, and further in view of Radatti et al. (US Patent Number 6,763,467) hereinafter referred to as Radatti.

Bates and Marsh disclosed identifying potential malware (See the rejection of claim 1 above) but failed to disclose that only messages including an executable element is identified as potential malware.

Radatti teaches that only executable code may contain malware (See Radatti Col. 1 Lines 36-48).

It would have been obvious to the ordinary person skilled in the art to employ the teachings of Radatti in the system of Bates and Marsh by only marking executables as potential

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malware. This would have been obvious because the ordinary person skilled in the art would have been motivated to avoid falsely identifying non-malware as malware.

(10) Response to Argument

Issue #1 and Issue #2

Regarding the appellants' assertion that the specification provides proper support for claim limitations requiring the identifying logic to identify whether each of (i), (ii), **and** (iii) are true, the examiner disagrees. The appellants have only pointed at the general statements in the specification "the anti-virus mechanism 6 can apply the techniques hereinafter" and "the general purpose computer 200 operating under control of a suitable computer program may perform the above described techniques". Neither of these statements explicitly or implicitly provides support for identifying all of (i), (ii), and (iii) **together**. Rather, the section of the specification which supports (i), (ii), and (iii), located at Page 7 Line 30 – Page 8 Line 15, only supports identification of these conditions in the alternative. As such, the examiner believes that the objection to the specification and the rejection of the claims under 35 USC 112 1st Paragraph should be upheld.

Issue #3

Regarding the appellants' argument that Bates does not disclose the limitation of "comparison logic operable to compare said e-mail message with **at least one of** an address book of a sender of said e-mail message and one or more previously generated e-mail messages from said client computer", the examiner disagrees. The appellants argue that Bates teaches that "a

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new e-mail source address is only compared with e-mail received". However, the examiner points out that Bates disclosed in Col. 6 Lines 64-67 that as *"an additional feature, prediction application 42 may also analyze out-going e-mail in the same manner as in-coming e-mail to predict the likelihood of each outgoing e-mail as spam."* As such, in Bates, when analyzing an e-mail which is **out-going**, it is clear that the e-mail "received" by the prediction application 42 would have been generated in the client, and therefore the new e-mail "source address", which is part of the new e-mail, is compared with the "received" out-going mail. Furthermore, in the combination of Bates and Marsh, Marsh clearly teaches comparing an e-mail message with an address book of a sender of said e-mail message, as seen in the Background of Marsh and Col. 2 Line 34 – Col. 3 Line 65. Even further still, Bates, in Col. 9 Lines 3-5, disclosed comparing new e-mail with the source addresses of e-mail received during a designated "B" time period. This "list" of source addresses falls within the scope of an address book. As such, the combination of Bates and Marsh meet this limitation of the claim language, and as such the examiner believes that the rejection should be upheld.

Regarding the appellants' argument, with regards to the limitation of "identifying whether...said e-mail message contains message content having at least a threshold level of similarity to non-identical message content of said previously generated e-mail messages being sent to more than a threshold number of addressees specified within said address book", that Bates does not disclose "e-mail messages being sent to more than a threshold number of addressees **specified within said address book**", the examiner disagrees. First of all, as discussed in the previous paragraph, Bates discloses determining whether or not the number of users receiving e-mail from the same source address during a time period is greater than a

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designated number of recipients, as is seen in Col. 9 Lines 3-19. Because the "source address" is a portion of an e-mail message, as is the recipient address, and because the messages being "tallied" all have the same source address, then these tallied messages have at least that level of similarity with one another, without being identical. Furthermore, because the list of users who have received e-mail from the same source address during the "B" time period constitutes an address book, Bates has disclosed this particular limitation by himself.

However, irregardless of these teachings of Bates, the examiner has relied upon the teachings of Bates in combination with the teachings of Marsh in showing the obviousness of this limitation. Bates teaches in Col. 3 Lines 57-60, that when classifying whether an e-mail is potential spam, it is important to compare the e-mail to a selection of **similar** e-mails. Marsh teaches, in Col. 1 Lines 35-53 and Col. 2 Line 34 – Col. 3 Line 34, a method for identifying viral spam which involves determining whether a message is addressed to more than certain number of addresses from the senders address book, which is indicative of a virus attempting to replicate itself through e-mail propagation, and further teaches that the virus may send one message to each recipient rather than sending one mass e-mail. One of ordinary skill in the art, based upon these teachings of Bates and Marsh, would have recognized at least that viruses replicate through the use of addresses found in address books, that the virus may send its virus code to each recipient in a separate e-mail, and that a spam message can vary from e-mail to e-mail. Based on these teachings, one of ordinary skill in the art would recognize that by utilizing the teachings of Marsh in the spam detection system of Bates, by determining whether a threshold number of addresses from the senders address book are included as recipients of an e-mail message, that the message can be predicted as viral spam. Further based on the teachings of Bates, one of ordinary

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skill in the art would have recognized that each e-mail message of viral spam is not necessarily identical, and as such would have been motivated to compare the addresses of similar e-mail messages with the address book of the sender, to determine whether a threshold number of addresses from the senders address book are included as recipients of the similar e-mail messages, which would indicate potential viral spam. Therefore, for the reasons presented above, the examiner believes the rejection of this claim limitation is proper and should be upheld.

Regarding appellants' argument that in the system of Bates, when step 94 of Fig. 4A results in a "YES" for step 98, that step 114 of Bates, which compares for substantial similarities between e-mails, is not executed, and therefore Bates does not teach, but rather teaches away from, performing both step 98 and step 114, the examiner disagrees. Clearly, as shown in Fig. 4A, as long as the determinations from step 98 – step 110 continue to result in "NO", the determinations are made. Appellants' example when step 98 results in a "YES" is merely one the "scenarios" disclosed by Bates, and not the scenario being relied upon in rejecting the claims. Furthermore, in no way does this one scenario teach away from the scenario when both step 98 and step 114 are performed. Further still, in the teachings of Bates, for any message which is does not have recipients on the inclusion list, but is determined to be normal e-mail, and not spam, steps 98 and 114 are performed. As such, the examiner believes the rejection should be upheld.

Regarding appellants' arguments that it would not have been obvious to have placed new e-mail messages in a "quarantine" for a predetermined amount of time prior to sending the messages, the examiner disagrees. Appellants have argued that this would not have been

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obvious because the system of Marsh runs on a client and utilizes client-based information, such as address books, while the system of Bates is server based and uses "rules stored on a server", and thus Marsh teaches away from Bates. First of all, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, simply because Marsh disclosed a preferred embodiment on a client, while Bates disclosed a preferred embodiment on a server, does not teach away from suggested combination. Second, Bates clearly teaches that a pc can be **both a client and a server** (See Bates Col. 1 Lines 21-26), that it is known for e-mail software applications on the client to perform the filtering of unsolicited e-mail (See Bates Col. 2 Lines 8-11), that the teachings of Bates can be applied to out-going email, which is particularly helpful in subduing the spread of viruses, such as those that automatically transmit themselves utilizing client e-mail address books (See Bates Col. 6 Line 64 Col. 7 Line 6), and that unsolicited sending of e-mail can unnecessarily utilize data storage space on servers (See Bates Col. 2 Lines 1-2). Based on these teachings alone, it is clear that Bates does not teach away from filtering e-mail at the client. Rather, one of ordinary skill in the art would have recognized, based upon these teachings of Bates, that in order to unnecessarily utilize data storage space on servers, that the filtering of out-going e-mail should be performed at the client utilizing the clients e-mail software packages. As such, the examiner believes that the combination of Bates and Marsh was proper, and as such believes that the rejection should be upheld.

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Regarding appellants' argument, pertaining to the rejection of claim 26, that the teachings of Bates fail to show indication of potential malware when the e-mail shares a common attachment with previous e-mail, the examiner disagrees. Bates teaches determining whether a certain number of users receive "the same email" (i.e. identical) over a given period of time, and if so predicting it as spam (See Bates Col. 7 Lines 23-29). Bates, in Col. 2 Lines 3-7, disclosed that "unsolicited mail may includes **viruses, worms, or other destructive attachments** that can easily be transmitted within a server upon activation [of the destructive attachment] at a single client within a network." In other words, e-mail may include attachments, and spam may include malware (viruses, worms, or other destructive attachments). As such, by determining whether a certain number of users receives "the same email" (i.e. identical) over a given period of time, Bates also determines whether any attachments in the e-mails are the same. And when the email, including the attachments, are the same as a certain number of other e-mail messages, the system of Bates marks the e-mail as potential spam. Because Bates disclosed that spam can be malware, marking an e-mail as potential spam implicitly marks the message as potential malware. As such, the examiner believes the rejection should be upheld.

Issue #4

Regarding appellants' argument, with regards to claim 27, that Bates2 fails to provide support for sending a message to a malware computer program provider "to provide a warning of new malware outbreaks", the examiner disagrees. First of all, the examiner has interpreted "new malware outbreaks" as meaning new outbreaks of malware. The claim language does not limit the scope of the claim to "new malware" (i.e. previously unknown

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viruses), but rather limits the scope to new outbreaks of malware. When malware is detected in a new e-mail, as taught by Bates and Marsh, because the e-mail is a new e-mail, the malware in the e-mail is a new instance of the malware, and therefore is a new malware outbreak. Bates2, in Col. 8 Paragraph 1, teaches that upon such a detection, a virus detection company (malware computer program provider) should be notified. As such, the combination meets the claim limitation. Furthermore, it is obvious that if the detected malware is new malware, then the message implicitly "warns of a new malware outbreak". Further still, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the intended purpose of the message sent to the virus detection company (to warn of a new malware outbreak) is irrelevant as it provides no structural difference to the claimed invention. As such, the examiner believes the rejection should be upheld.

Regarding appellants argument, with respect to claim 28, that Bates2 fails to teach sending a copy of the e-mail with the message, the examiner agrees that this is not explicitly taught by Bates2, but also notes that Bates2 was not relied upon as "teaching" this limitation. Rather, the examiner has relied upon what would have been common sense to the ordinary person skilled in the art of malware detection, in that upon sending a message notifying a virus detection company of detection of an e-mail infected by malware, it would have been common sense to include the infected email in the message in order to allow the virus detection company to analyze the virus for future detection. Again, this is simply obvious and any ordinary person

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skilled in the art of virus detection would have come to this conclusion. As such, the examiner believes the rejection should be upheld.

Issue #5

The appellants have presented no further arguments with respect to the combination of Bates, Marsh, and Kouznetzov, and as such the examiner believes the rejection should be upheld for the reasons presented above.

Issue #6

Regarding appellants' argument, with respect to claim 25, that the combination of Bates, Marsh, and Radatti did not teach or suggest identifying a message as potentially containing malware only if said e-mail message includes an executable element, the examiner disagrees. First, the examiner points out that in the combination of Bates and Marsh, the malware being detected is email propagated, as can be seen in Bates Col. 2 Lines 3-7 and Col. 6 Line 64 – Col. 7 Line 6, as well as in Marsh Col. 1 Lines 50-53, as well as the nature of the combination in that it is filtering e-mails. Second, it was well known in the art at the time of invention that malware had to be executed by a computer in order to achieve its intended purpose of disrupting the computer system, and as such it was well known that all malware had an executable "element" or portion. This is evidenced by Radatti in Col. 1 Lines 36-48, wherein Radatti describes different types of malware and all of the types are executable. Third, it was well known in the art at the time of invention, and also was admitted in the instant specification on page 5 Lines 1-4, that virus propagating e-mail requires an executable payload. Because it was known that malware

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requires an executable element, and more specifically that e-mail propagated viruses, as are being detected in the combination of Bates and Marsh, require an executable payload, it would have been obvious to the ordinary person skilled in the art at the time of invention to have only identified an e-mail as potentially containing malware if it contained an executable payload.

This would have been obvious because the ordinary person skilled in the art would not want to create unnecessary false positives. This is analogous to the following example.

Say that Ted is presented with a table completely covered with various types of food, including lemons, oranges, turkeys, strawberries, apple pie, mashed potatoes, raspberries, and chocolate cake. Ted is then told that some of the food items have been poisoned, and Ted is also told that only food items which are the color red are have been poisoned. In order for Ted to safely eat a meal Ted must avoid the poisoned food items. Because he knows that all the poisoned food items are red in color, it would be obvious to Ted that all the food items which are the color read are potentially poisoned, and as such he would avoid those items. However, it would also be obvious to Ted not to label any food item which is not the color red as potentially poisoned because he knows that only red items were poisoned.

In the same way, because all malware must have an executable element, it would be obvious to one of ordinary skill in the art to not identify an e-mail as potentially containing malware if it did not have an executable element. As such, the examiner believes that the rejection should be upheld.

Regarding appellants' argument that the prior art does not teach or suggest only identifying an e-mail as potentially containing malware if it includes an executable element, to

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speed processing, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this case, the reason for including this claimed feature is not relevant, as the reason for including it does not render the system or method any different. As such, the examiner believes the rejection should be upheld.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

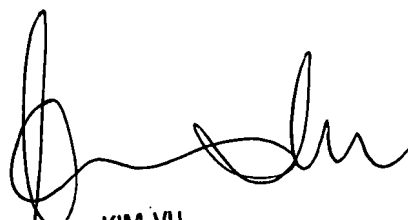
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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




Matthew T. Henning
Patent Examiner
Art Unit 2131

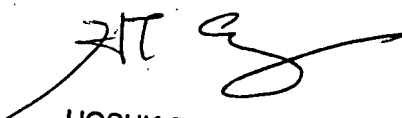


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